NOAA FY2004 Budget Summary
NWS Section -- Feb. 3, 2003

National Weather Service

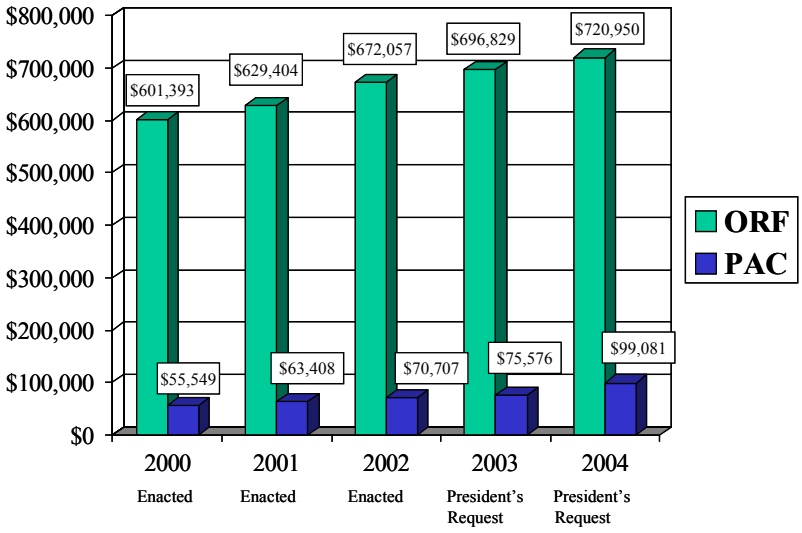
NOAA's National Weather Service (NWS) provides weather, water, and climate forecasts and warnings for the United States, its territories, adjacent waters, and ocean areas. In performing this critical mission, the NWS provides for the protection of life and property and the enhancement of the national economy. NWS data and products form a national and international information database and infrastructure which, in turn, serve other governmental agencies, the private sector, the public, and the global community.

The Dimmitt, Texas Tornado, 1995—National Severe Storms Laboratory (NSSL)

PROGRAM INCREASE FOR FY 2004: NOAA requests a net increase of **$27,555,000** for a total request of **$820,031,000** to support the continued and enhanced operations of the National Weather Service's programs. These increases are summarized at the sub-activity level for the purposes of the Budget Summary. Detailed numeric breakouts are located in Chapter 5, *Special Exhibits*; and descriptions of each request by line item is in the NOAA FY 2004 Technical Budget.

Historical Resources
FY 1999 - 2004
Operations, Research & Facilities (ORF)
Procurement, Acquisition & Construction (PAC)

(Dollars in Thousands)



FY 2003 resources do not include CSRS

The National Weather Service (NWS) provides weather, hydrologic, and climate forecasts and warnings for the United States, its territories, adjacent waters, and ocean areas for the protection of life and property and the enhancement of the national economy. NWS data and products form a national information database and infrastructure which can be used by other government agencies, the private sector, the public, and the global community.

The United States is the most severe weather-prone country on Earth. Each year, Americans cope with an average of 10,000 thunderstorms, 2,500 floods, 1,000 tornadoes, as well as an average of 6 deadly hurricanes. Some 90% of all presidentially declared disasters are weather related, causing approximately 500 deaths per year and $11 billion in damage. Weather is directly linked to public safety and about one-third of the U.S. economy (about $3 trillion) is weather sensitive. Seasonal and interannual variations in climate, like El Nino, led to economic impacts on the order of $25 billion for 1997-98. All of these impacts are further magnified by current socio-economic trends such as population growth in severe weather-prone areas of the country, drought, and increasing demands for fresh water. In addition, key NOAA customers such as industry, state and local governments, and emergency managers are demanding more reliable and more specific weather, water, and climate information for use in key decision making. These multiple demands all point to the need to sustain and improve NWS' core observing, forecasting and warning services.

The NWS continues to establish and track key service performance improvement goals and has been recognized within and outside government as a leader in performance based management and for actually delivering on the goals it has set. With the FY 2004 budget, the NWS will continue to focus resources toward improving its core performance measures including tornado warning lead time (12 minutes); flash flood warning accuracy (89%); Winter Storm Warning accuracy (89%); 48hr Hurricane track forecast error (129 nautical miles); Aviation Ceiling/Visibility accuracy (46%); marine wind speed forecast accuracy (54%); and marine wave height forecast accuracy (66%).

National Hurricane Center

The FY 2004 President's Budget Request supports the funding and program requirements to enable the NWS to better use science and technology to serve our citizens and fulfill its vision of becoming America's "no surprise" weather service. This vision states the NWS will produce and deliver forecasts that can be trusted, use cutting-edge technologies, provide services in a cost-effective manner, strive to eliminate weather-related fatalities, and improve the economic value of weather information.

[Refer to the NOAA FY 2004 Technical Budget, under Operations, Research and Facilities (ORF) - NWS.]

Local Warnings and Forecasts $4,050,000 Increase

Local Warnings & Forecasts	Base	Increase	Total
Susquehanna River Basin Flood System	0	*$1.3 million*	$1.3 million
Pacific Island Compact	0	*$3.6 million*	$3.6 million
Facilities Physical Security	0	*$2.2 million*	$2.2 million
Other Programs - including Decreases & Terminations	$580.6 million	**($3.0 million)**	$577.6 million
Total - Local Warnings & Forecasts	**$580.6 million**	**$4.1 million**	**$584.7 million**

- **$4,050,000 net increases is requested under the Local Warnings and Forecasts sub-activity.**

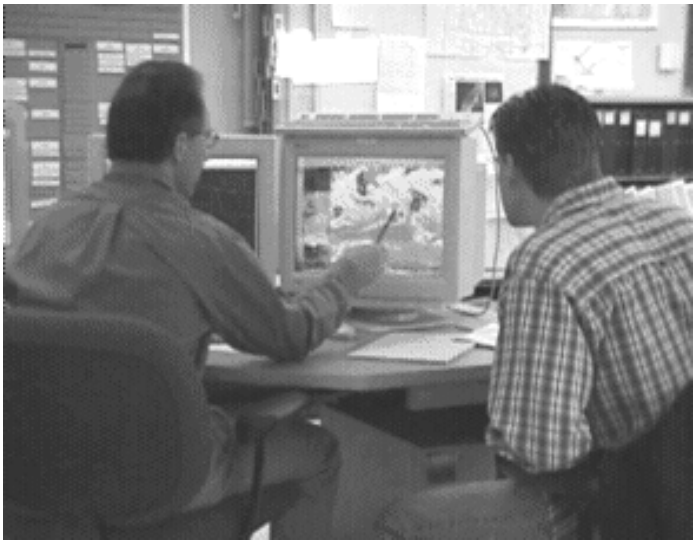
  - **$1,300,000 to sustain operations and maintenance of the Susquehanna River Basin Flood System.** This system provides enhanced flood prediction capabilities to States along the Susquehanna River including NY, PA, and MD. The requested funding will allow NWS to maintain this system at current service levels. Funds will support operations and maintenance of the current U.S. Geologic Survey river gauge network along the Susquehanna River and enhanced NWS hydrologic forecast and warning services.

  - **$3,550,000 to preserve critical weather observation services in the Pacific**. This funding increase reflects the transfer of funding responsibility for the Pacific Island Compact to NOAA from the Department of the Interior. The transfer will preserve the weather observation infrastructure necessary to support core NOAA mission responsibilities in the Pacific such as aviation, typhoon, and marine forecasts; climate monitoring; and support to U.S. Navy Operations. This increase in funding is also need to maintain the existing level of weather forecast warning services to the Micronesian States. The U.S. maintains a Compact of Free Association (COFA) or agreement with the Republic of the Marshall Islands (RMI), the Federated States of Micronesia (FSM), and the Republic of Palau (ROP) to provide basic government and commerce services including weather services to these island nations. The Compact,

which is currently administered by the Department of the Interior (DOI), provides the necessary funding to support the NWS Weather Service Offices (WSO) and associated weather warning, forecast, and observation services for these islands including WSO Majuro, RMI; WSOs Pohnpei, Yap and Chuuk of the FSM; and WSO Koror of ROP. The U.S. has recently renegotiated the current COFA agreement which expires at the end of FY 2003. COFA2, which will cover the next 20 years, assumes each agency involved will fund its COFA programs directly instead of through the DOI reimbursement arrangement.

– **$2,200,000 to improve overall physical security at 149 NWS facilities** in order to preclude unauthorized individuals from entering and/or tampering with NWS property. After the Oklahoma City bombing in 1995, all Government buildings were assessed for vulnerability/ threat conditions and rated on a five-tiered scale. The NWS facilities are rated at the II level. From FY1996 - FY2000, DOC/NOAA funded the improvements necessary to meet the Level II requirements. Funding is now required to replace outdated equipment and establish continuing maintenance capacity to sustain Level II security compliance. The implementation plan for this initiative requires a series of one-time procurement actions plus recurring maintenance and technology upgrades. The NWS performed an agency wide assessment of its facilities and developed a list of outstanding security issues which must be addressed to comply with the level II requirements.

- ***Only Program Increases are discussed in detail in this Summary. The total in the table above reflects the net of base, program increases and program decreases and terminations, and includes a base reduction of $3,000,000 to reflect savings due to the NWS Modernization.***



[Refer to the NOAA FY 2004 Technical Budget, under Procurement, Acquisition and Construction (PAC) - NWS.]

Procurement, Acquisition and Construction (PAC) - Systems Acquisition $10,100,000 Net Increase

NWS PAC	Base	Increase	Total
Next Generation Radar (NEXRAD)	$8.3 million	*$3.7 million*	$12.0 million
NWS Telecommunications Gateway (NWSTG) Legacy Replacement	0	*$2.9 million*	$2.9 million
NWS Coastal Global Observing System	0	*$2.0 million*	$2.0 million
All Hazard National Warning Network: NOAA Weather Radio	0	*$5.5 million*	$5.5 million
Other Programs - including Increases & Terminations	$56.6 million	**($4.0 million)**	$52.6 million
Total - NWS Systems Acquisition	**$64.9 million**	**$10.1 million**	**$75.0 million**

- **$10,110,000 in net increases for the NWS PAC-Systems Acquisition line item.**
  - **$3,740,000 for NEXRAD Product Improvement** to accelerate the deployment of the NEXRAD Open Radar Data Acquisition (ORDA) and the NEXRAD Dual Polarization improvements. The acceleration of ORDA will enable the NWS to improve tornado warning lead times from 11 minutes to 15 minutes by 2007 and save $2.4M from the total cost of the NEXRAD Product Improvement Program. The ORDA systems, when implemented, will double the range for detection of small tornadoes from 120km to 240km, increase coverage area for small tornadoes by 80% and accelerate volume scanning from 5 minutes to 2.5 minutes.

– **$2,870,000 for Telecommunications Gateway Replacement** to begin a two year effort to replace the National Weather Service Telecommunications Gateway (NWSTG) switching system and repair and upgrade NWSTG facilities. The NWSTG is the NWS communications hub for collecting and distributing weather information to its field units and external users. Replacing the NWSTG system with up-to-date technology will reduce the current delays in collecting and disseminating data by reducing transit time through the NWSTG. The replacement will ensure reliable delivery of NWS products to users and will fully capitalize on better observation data and prediction models to improve services.

– **$2,000,000 for NWS Coastal Global Observing System** to establish a Coastal-Global Ocean Observing System (C-GOOS) in the NWS. The C-GOOS is a new initiative fulfilling the U.S. coastal component of the international GOOS effort and addressing the mandate of the President's Commission on Ocean Policy and the National Oceanographic Partnership Program to bring together government, industry and academia. NOAA's C-GOOS will add oceanographic sensors to the existing NWS Marine Observational Network. These new ocean measurements will provide definitive information on the effects of the changing climate on coastal U.S. communities; improve forecasts of ocean conditions which adversely impact coastline erosion and the fishing, tourism, and oil and gas industries; allow biological and chemical water sampling; provide information on locations of marine endangered or protected species; and monitor coral reef health.

– **$5,500,000 for All Hazards Warning Network** to automate the collection and dissemination of civil-emergency messages over NOAA Weather Radio (NWR). Today, the NWS broadcasts non-weather civil emergency messages over NWR for events such as earthquakes, chemical spills/release, nuclear release, biohazards, and fire under authority of the Robert T. Stafford Disaster Relief and Emergency Assistance Act and Federal Emergency Management Agency's Federal Response Plan. The current process for broadcasting emergency messages requires first responders and emergency managers to call the local NWS WFO to request a message to be re-typed by an NWS employee and sent out over the NWR network. This labor intensive process introduces delays in delivering critical emergency information to the public, is prone to error, and is subject to potential security breach. The FY 2004 request for this activity is a one time cost to modify existing AWIPS communications software to allow emergency managers to directly transmit a civil emergency message over secure lines. The existing NWR network provides the most robust, Government owned and operated dissemination infrastructure capable of meeting the all-hazard broadcasting requirements with necessary upgrades. NWR is located in every state, linked to the Emergency Broadcast System and NOAA weather radio receivers are widely available in the commercial market.

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• **Only Program Increases are discussed in this Summary. The total shown in the table above reflects the net of base, program increases and program decreases and terminations, and includes reductions of $2,130,000 in AWIPS, and $1,875,000 in Weather & Climate Supercomputing.**

Procurement, Acquisition and Construction (PAC) - Construction $13,400,000 Increase

NWS PAC	Base	Increase	Total
WFO Construction	$10.6 million	*$3.0 million*	$13.6 million
NOAA Center for Weather and Climate Prediction	0	*$10.4 million*	$10.4 million
Total - NWS Construction	**$10.6 million**	**$13.4 million**	**$24.0 million**

- **$13,400,000 for the NWS PAC-Construction sub-activity.**

  - **$3,000,000 for Acceleration of Weather Forecast Office (WFO) Construction** to speed completion of the ongoing NWS Facilities Construction program, including Alaska facilities modernization and necessary corrective actions at NWS Weather Forecast Offices nationwide. The NWS plans to replace 13 outdated field offices and employee housing complexes in Alaska. The proposed acceleration will complete the program several years earlier (FY 2008 vs FY 2013), delivering an acceptable working and living environment to NWS employees quicker and saving approximately four million dollars in inflation and program management costs. The NOAA/NWS mission will be maintained and enhanced by having reliable and code-compliant facilities.

  - **$10,400,000 for the new NOAA Center for Weather and Climate Prediction:** Funds are required in FY 2004 to award a facility construction design/build contract to be managed by GSA, and fully fund the above standard construction costs for the project, ensuring building occupancy by 2007. This planned new facility will replace the current World Weather Building with a new state-of-the-art facility to meet the operational requirements of NWS's National Centers for Environmental Prediction (NCEP) and NESDIS's Office of Research and Applications and Satellite Services Division, and OAR's Air Resources Laboratory. The Department of Commerce, the State of Maryland, and academic community advisors have all agreed on a shared vision to build a Center of Excellence for Environmental Research, Education, Applications and Operations at a location in suburban Maryland near an academic research institution with the following objectives: meet NOAA operational requirements; create research synergy in weather and climate prediction; accelerate transition of new science and technology into operations; increase interaction between students and professors; and enhance recruitment opportunities.